sensor filter 14 blocks the outside environment and passes the light between the sensor cover 13 and the sensor 11 only.

In addition, the lens blade unit acts as an actuator. The lens blade unit includes an elastic means 16 to which the current from the outside is applied, a coil 19 wound around for the induced current by the elastic means to flow, a magnet 20 that forms an electromagnetic field due to the current flowing in the coil, a lens blade 18 that receives the electromagnetic force generated by the coil and the magnet, and a lens 17 that shifts up and down, being connected to the center of the lens blade.

Preferably, a yoke 21 can be further installed in a way to increase an efficiency of the magnet. Fig. 4 shows another preferred embodiment of the present invention with the yoke. Fig. 5 is a cross sectional view of Fig. 4. In Figs. 4 and 5, the yoke 21 forms a 'u' shape and increases the efficiency of the magnetic flux, which consequently improves the driving force.

The filter can be formed of glass, and more preferably, coated glass. Also, a holder 15 is further installed at the outside of the sensor cover to support the elastic means.

The elastic means can be made of a coil spring, and if necessary, a plate spring. When the holder 15 and the

elastic means 16 are fabricated together, a damper can be inserted around a fabrication hole to protect the product from any foreign shock.

More specifically, four holders at both ends, two holders on the upper and lower sides support the elastic means according to an embodiment of the present invention. The application of the embodiment can be varied in many ways. For example, it is always possible to support the elastic means by using two holders, one at the top and the other at the bottom.

The operation of the image module with the automatic focus adjuster in accordance with the present invention is now explained in more detail.

As shown in Fig. 2, if a wire is connected to the end of the elastic means 16 from the outside, the current is induced thereby. Through the elastic means 16, the induced current flows in the spool shaped coil 19 wound around the outside of the lens blade 18. Accordingly, an induced electromotive force is generated by the coil, and an electromagnetic filed is formed due to the magnet 20 nearby the coil 19, or a permanent magnet. In the electromagnetic field, the electromagnetic force is generated, and the lens blade 18 shifts up and down according to the Fleming's left-hand rule. Accordingly, the lens 17 connected to the lens blade 18 is adjusted to be close or far from the image

sensor 11.

In the meantime, the driving direction of the lens 17 is changed when the current is applied to the elastic means 16 from the opposite direction. The shift distance at this time is approximately from 1/10mm to approximately 1/2mm, which is sufficient for focusing a picture on the image sensor 11 very precisely. The driving direction and the shift distance of the lens, therefore, can be adjusted to the direction and intensity of the current after sensing the perspective of the lens based on the picture image data from the image sensor.

The image module with the automatic focus adjuster of the present invention can be applied to a PC connected camera. The user can adjust the focus automatically by inducing current variation using an automatic image analysis program, or adjust the focus arbitrarily while watching the monitor screen, for example, by using a mouth in order to induce current variation.

In addition, the image module with the automatic focus adjuster of the present invention can be applied to every kind of sensor installment equipment requiring the focus adjustment including a simple mobile type monitor that is typically used in the related art. Although the user had to turn the lens or use the driving system such as a motor or a solenoid system in order to focus, it is now